

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,315,295 B2
APPLICATION NO. : 09/956994
DATED : January 1, 2008
INVENTOR(S) : Mutsumi Kimura

Page 1 of 9

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Col. 10, Line 8 should read

1. A driving method for an electro-luminescent device which includes, corresponding to an intersection of a scanning line and a data line, an electro-luminescent element, a driving transistor that controls a current flowing through the electro-luminescent element, the electro-luminescent element emitting light by the current and a switching transistor that controls the driving transistor, the driving method comprising:

a setting step, performed during a first sub horizontal scanning period of a horizontal scanning period, of supplying a first on-signal to the switching transistor via the scanning line, and of supplying a set signal to select a conducting state or a non-conducting state of the driving transistor to the driving transistor via the data line and the switching transistor in accordance with a period for which the first on-signal is supplied;

a resetting step, performed during a second sub horizontal scanning period of the horizontal scanning period, of supplying a second on-signal to the switching transistor via the scanning line, and of supplying a reset signal to select the non-conducting state of the driving transistor to the driving transistor via the data line and the switching transistor in accordance with a period for which the second on-signal is supplied,

wherein the period for which the first on-signal is supplied coincides with a period for which the set signal is supplied.

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Col. 10, Line 36 should read

2. The driving method for an electro-luminescent device according to claim 1, further including performing the setting step in a first horizontal scanning period, and performing the resetting step in a second horizontal scanning period.

Col. 10, Line 41 should read

3. The driving method for an electro-luminescent device according to claim 1, further including obtaining a gray-scale by performing a plurality of set-reset operations, each set-reset operation including the setting step and the resetting step.

Col. 10, Line 46 should read

4. The driving method for an electro-luminescent device according to claim 3, further including providing a time interval between the setting step and the resetting step that is different for each of the plurality of set-reset operations.

Col. 10, Line 50 should read

5. The driving method for an electro-luminescent device according to claim 3, further including providing the time interval between the setting step and the resetting step for each of the plurality of set-reset operations to be completely different from each other, and the ratio of time intervals for the plurality of set-reset operations being set to be about 1:2: ... :2n (n is an integer of one or more) based on the minimum time interval.

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Col. 10, Line 58 should read

6. The driving method for an electro-luminescent device according to claim 1, further including providing the set signal to be a signal for setting the conducting state for the driving transistor rather than the signal for selecting the conducting state or the non-conducting state of the driving transistor.

Col. 10, Line 64 should read

7. The driving method for an electro-luminescent device according to claim 1, further including driving the electro-luminescent element including an organic electro-luminescence element.

Col. 11, Line 1 should read

8. An electro-luminescent device driven by the driving method according to claim 1.

Col. 11, Line 3 should read

9. An electro-luminescent device, comprising:
a scanning line;
a data line;
an electro-luminescent element corresponding to an intersection of the scanning line and the data line;
a driving transistor that controls a current flowing through the electro-luminescent element, the electro-luminescent element emitting light by the current;

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a switching transistor that controls the driving transistor; and

a drive circuit that generates a signal to set the switching transistor to be an on-state or an off-state, and that generates a set signal to set the driving transistor during a first sub horizontal scanning period of a horizontal scanning period or a reset signal to reset the driving transistor during a second sub horizontal scanning period of the horizontal scanning period in accordance with the signal to set the switching transistor to be the on-state or the off-state,

wherein the drive circuit is configured to supply a first on-signal to the switching transistor during a period that coincides with a period for which the set signal is supplied.

Col. 11, Line 26 should read

10. An electro-luminescent device, comprising:

a scanning line;

a data line;

an electro-luminescent element corresponding to an intersection at the scanning line and the data line;

a driving transistor that controls a current flowing through the electro-luminescent element, the electro-luminescent element emitting light by the current;

a switching transistor that controls the driving transistor;

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a scanning line driver that supplies a signal to set the switching transistor to be an on-state or an off-state to the scanning line; and

a data line driver that supplies a set signal to set the driving transistor during a first sub horizontal scanning period of a horizontal scanning period or a reset signal to reset the driving transistor during a second sub horizontal scanning period of the horizontal scanning period to the data line in accordance with an operation of the scanning line driver,

wherein the data line driver is configured to supply the reset signal within a vertical scanning period during a period that is substantially constant, and

the scanning line driver is configured to supply a first on-signal to the switching transistor during a period that coincides with a period for which the set signal is supplied.

Col. 11, Line 54 should read

11. An electro-luminescent device, comprising:

a scanning line;

a data line;

an electro-luminescent element corresponding to an intersection of the scanning line and the data line;

a driving transistor that controls a current flowing through the electro-luminescent element, the electro-luminescent element emitting light by the current; and

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a switching transistor that controls the driving transistor, an on-signal to perform a setting step of setting the electro-luminescent element during a first sub horizontal scanning period of a horizontal scanning period and a resetting step of resetting the electro-luminescent element during a second sub horizontal scanning period of the horizontal scanning period being supplied to the switching transistor via the scanning line,

wherein a number of the signal to perform the setting step and a number of the signal to perform the resetting step are substantially the same, and

the switching transistor is configured to supply a first on-signal to the switching transistor during a period that coincides with a period for which the set signal is supplied.

Col. 12, Line 12 should read

12. The electro-luminescent device according to claim 9, the electro-luminescent element including an organic electro-luminescence element.

Col. 12, Line 16 should read

13. An electronic apparatus, comprising:

the electro-luminescent device set forth in claim 8.

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Col. 12, Line 18 should read

14. A driving method for an electro-luminescent device which includes, corresponding to an intersection of a scanning line and a data line, an electro-luminescent element, a driving transistor that controls a current flowing through the electro-luminescent element, the electro-luminescent element emitting light by the current and a switching transistor that controls the driving transistor, the driving method comprising:

a setting step, performed during a first sub horizontal scanning period of a horizontal scanning period, of supplying a first on-signal to the switching transistor via the scanning line, and of supplying a set signal to select a conducting state or a non-conducting state of the driving transistor to the driving transistor via the data line and the switching transistor in accordance with a period for which the first on-signal is supplied; and

a resetting step, performed during a second sub horizontal scanning period of the horizontal scanning period, of supplying a second on-signal to the switching transistor via the scanning line, and of supplying a reset signal to select the non-conducting state of the driving transistor to the driving transistor via the data line and the switching transistor in accordance with a period for which the second on-signal is supplied, the setting step and the resetting step forming a set-reset operation,

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wherein a plurality of the set-reset operations are performed within one frame period, at least two set-reset operations of the plurality of the set-reset operation having mutually different time lengths and

the period for which the first on-signal is supplied coincides with a period for which the set signal is supplied.

Col. 12, Line 53 should read

15. An electro-luminescent device, comprising:

a scanning line;

a data line;

an electro-luminescent element corresponding to an intersection of the scanning line and the data line;

a driving transistor that controls a current flowing through the electro-luminescent element, the electro-luminescent element emitting light by the current;

a switching transistor that controls the driving transistor; and

a drive circuit that generates an on-signal to perform a setting step of setting the electro-luminescent element during a first sub horizontal scanning period of a horizontal scanning period and a resetting step of resetting the electro-luminescent element during a second sub horizontal scanning period of the horizontal scanning period supplied to the switching transistor via the scanning line,

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wherein a plurality of pairs of the setting step and the resetting step are performed within one frame period, and

a period for which a first on-signal is supplied to the switching transistor coincides with a period for which a set signal is supplied.

Signed and Sealed this

Third Day of June, 2008

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is stylized, with a large loop for the "J" and a distinct "D" at the end.

JON W. DUDAS
Director of the United States Patent and Trademark Office